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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,311	03/30/2004	Takao Takehara	MINB-02023/A-3195	1795

7590 03/23/2005

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EXAMINER
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JEAN PIERRE, PEGUY

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

**Office Action Summary**

Application No.

10/812,311

Applicant(s)

TAKEHARA, TAKAO

Examiner

Peguy JeanPierre

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/30/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement filed on 3/30/2004 has been considered.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of a timer that is coupled to a divider to generate a divided encoded signal and the relationship between the first period and the second period must be shown or the feature(s) canceled from the claim(s). In addition, the limitations of claim 2 of a selector coupled to the calculator, the divider, and the timer must also be shown. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

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consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is confusing. The preamble recites "an encoder output divider configured to divide an encoded signal". The body of the claim does not clearly state how the encoded signal is divided or the encoder output is further divided by the combined action of the timer and the divider to generate a divided encoded signal or the output signal of the encoder is divided with regard to the input signal of the encoder.

The divider is coupled to the timer; the timer measures the first timing cycle based on the first period, it is not clear whether the first timing cycle is divided to generate the second period; or the first timing cycle measures the encoder input signal or the encoder output signal; or the timing signal is divided to generate the second signal; or how the encoded signal is divided; or whether the encoder signal is outputted based on the second period. Please clarify. The same rejection applies to claim 5.

In claim 2, line 4, the term " the calculated value" lacks antecedent basis.

In claim 6, lines 4-5, the term "the measured cycle of the one..." is unclear;

Claim 8 is misleading. The claim recites a digital signal processor (DSP) that is configured to measure the first timing cycle, however the specification recites the DSP synchronizes the timer and the timer measures the timing cycle. Please clarify.

The claims as understood by the Examiner recite a divider coupled to a timer whose output drives an encoder to generate an encoded signal.

An art rejection of the claims as understood by the Examiner appears below.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herb (US 2003/0172727).


Herb discloses in Figure 3 a resolver circuit (36) that is connected to a timer (72). The timer is further connected to a frequency divider circuit (PLL 70) to generate an encoded output signal (60-66). Herb also discloses a converter (79) that converts sine wave and cosine wave output of the resolver to produce a first encoded signal and a second encoded signal (see page 3 paragraph 41; Figs. 2-3). Herb does not disclose a resolver instead of an encoder circuit, however, it is well known in the art that resolver and encoder are both transducers that are interchangeably used in industrial applications to

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indicate angular rotation or orientation of motor or shaft. It is also to be noted that the coupling of frequency divider to the timer will inherently generate a second or subsequent period of the encoded signal and the timer typically measures/times the cycle of the device it operates upon.

***Allowable Subject Matter***

7. Claims 2-4 and 6-9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
8. Claims 5-9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peguy JeanPierre whose telephone number is (571) 272-1803. The examiner fax phone number is (571) 273-1803.

  
Peguy JeanPierre  
Primary Examiner